

THIS OPINION WAS NOT WRITTEN FOR PUBLICATION

The opinion in support of the decision being entered today
(1) was not written for publication in a law journal and
(2) is not binding precedent of the Board.

Paper No. 12

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte SHERYAR DURRANI

Appeal No. 1999-1786
Application 08/821,738

ON BRIEF

Before FRANKFORT, STAAB, and MCQUADE, Administrative Patent Judges.

FRANKFORT, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on appeal from the examiner's final rejection of claims 1 through 8, which are all of the claims pending in the application.

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Appellant's invention relates to a steering wheel assembly (22) with an improved gear nut (42) for retaining the steering wheel assembly on a steering column shaft (24). The gear nut (42) being fitted into a recess in hub (28) and including threads for engaging the end of threaded steering column shaft (24) and gear teeth (46) for engaging a worm tool (54) for rotating the gear nut (42). The gear nut (42) further includes a web flange (50) at an inner end, which flange tapers radially outwardly generally from a longitudinal midway point of the gear nut (42) and axially towards the inner end of the gear nut. A representative copy reproduced from appellant's brief of independent claim 5 is attached to this decision.

The prior art references of record relied upon by the examiner as evidence of obviousness are:

Fisher	4,869,614	Sept. 26,
1989		
Scharboneau et al.	5,692,770	Dec. 2,
1997		
(Scharboneau)		

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Claim 6 stands rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point

out and distinctly claim the subject matter which appellant regards as the invention.

Claims 1-8 stand rejected under 35 U.S.C. § 103 as being unpatentable over Scharboneau in view of Fisher.

Rather than attempt to reiterate the examiner's full commentary with regard to the above noted rejections and conflicting view points advanced by the examiner and appellant regarding the rejections, we make reference to the final rejection (Paper No. 8, mailed June 5, 1998) and the examiner's answer (Paper No. 11, mailed February 1, 1999) for the reasoning in support of the rejections, and to appellant's brief (Paper No. 10, mailed January 4, 1999) for the arguments thereagainst.

OPINION

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In reaching our decision in this appeal, we have given careful consideration to the appellant's specification and claims, to the applied prior art references, and to the respective positions articulated by the appellant and the examiner.

As a preliminary matter, we note (brief, page 4) that appellant has stated that "Claims 1-8 stand or fall together." Accordingly, we will treat claims 1-8 as standing or falling with independent claim 5, the broader of the two independent claims.

We first turn to the rejection of claim 6 under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which appellant regards as the invention. The examiner sets forth (answer, page 3) that, in claim 6, line 2, the recitation of "said threads" lacks antecedent basis. The examiner further sets forth that in claim 6, line 3, the positive recitations of "a steering shaft" and "an outer end"

lack a proper antecedent basis since claim 5, line 2 inferentially recites "a steering shaft" and "an outer end" by reciting "a bore for receiving an outer end of a steering shaft." In the examiner's view, it is unclear whether or not the steering shaft and outer end in claim 6 is the same or different from the elements in claim 5. Appellant does not disagree with this rejection (brief, page 6, last paragraph). Accordingly, we shall sustain the examiner's rejection of claim 6 under 35 U.S.C. § 112, second paragraph.

Next we turn to the rejection of the claims on appeal under 35 U.S.C. § 103. In rejecting claims under 35 U.S.C. § 103, the examiner bears the initial burden of presenting a prima facie case of obviousness (see In re Rijckaert, 9 F.3d 1531, 1532, 28 USPQ2d 1955, 1956 (Fed. Cir. 1993); In re Oetiker, 977 F.2d 1443, 1446, 24 USPQ2d 1443, 1445 (Fed. Cir. 1992)), which is established when the teachings of the prior art itself would appear to have suggested the claimed subject matter to one of ordinary skill in the art (see In re Bell, 991 F.2d 781, 783, 26 USPQ2d 1529, 1531 (Fed. Cir. 1993)). The conclusion that

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the claimed subject matter is prima facie obvious must be supported by evidence, as shown by some objective teaching in the prior art or by knowledge generally available to one of ordinary skill in the art that would have led that individual to combine the relevant teachings of the references to arrive at the claimed invention. See In re Fine, 837 F.2d 1071, 1074, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988).

With this as our background, we look to the examiner's rejection of claims 1-8 under 35 U.S.C. § 103 as being unpatentable over Scharboneau in view of Fisher.

Before looking at the teachings of the applied references, we look to the requirements of independent claim 5 on appeal. Claim 5 requires, in summary, a steering wheel assembly (22) comprising a hub (28) including a bore having a bearing surface (78) and a gear (42) within said bore of said hub, said gear (42) having circumferentially spaced teeth (46) extending radially outwardly from an annular collar (47), said gear further including a web-flange (50) extending radially outwardly from said collar (47) and circumferentially between

said teeth (46) and tapered radially outwardly moving axially toward said inner end.

Now we look to the combination of Scharboneau and Fisher as applied to claims 1-8 by the examiner in the examiner's answer, pages 4-5. The examiner is of the view that Scharboneau discloses a steering wheel assembly (See Figures 5, 6A and 6C) substantially as set forth in claims 1 and 5 on appeal including a gear (174) having circumferentially spaced teeth extending radially from an annular collar (178). The examiner notes that Scharboneau does not disclose the gear including a web-flange extending radially outwardly from the collar circumferentially between the teeth tapering radially outwardly from a mid-point moving axially toward the inner end as set forth in claims 1 and 5. Fisher is relied upon as teaching a worm-gear connection device including a gear (10) having a web-flange extending radially outwardly from a collar circumferentially between the teeth and tapering radially outwardly from a mid-point moving axially toward the inner end. The examiner sets forth that the reason to provide the gear of Scharboneau with a web-flange is for the purpose of

making a stronger gear which is easier to manufacture.

Appellant argues (brief, page 5) that Fisher does not indicate that the gear would be stronger or easier to manufacture and that Scharboneau has no indication that a stronger gear which is easier to manufacture would be desirable. We agree with appellant (brief, page 5) that there is no suggestion in Scharboneau or Fisher to provide the gear of Scharboneau with a web flange like that taught by Fisher. The examiner argues (answer, page 6) that although Fisher does not explicitly state that the gear is strong or easy to manufacture, one of ordinary skill in the art upon looking at the disclosures of both Fisher and Scharboneau would have concluded that the shape and overall design of Fisher's gear would inherently be stronger and easier to manufacture than Scharboneau's gear. After reviewing the patents to Scharboneau and Fisher, we agree with appellant (brief, page 5) that the shape and overall design of Fisher's gear does not dictate a specific strength or method of manufacturing that would inherently be stronger and easier to manufacture than Scharboneau's gear and that these references provide no

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teaching or suggestions for modifying the gear (174) of Scharboneau to include a web flange of the type seen in the nut (10) of Fisher. In our opinion, the only motivation for the examiner's proposed modification of Scharboneau is based on hindsight derived from appellant's own disclosure. Therefore, we shall not sustain the examiner's rejection of claims 1-8 under 35 U.S.C. § 103.

CONCLUSION

In summary, we are affirming the examiner's rejection of claim 6 under 35 U.S.C. § 112, second paragraph, and reversing the examiner's rejection of claims 1-8 under 35 U.S.C. § 103.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 CFR § 1.136(a).

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AFFIRMED-IN-PART

CHARLES E. FRANKFORT)	
Administrative Patent Judge)	
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)	BOARD OF PATENT
LAWRENCE J. STAAB)	
Administrative Patent Judge)	APPEALS AND
)	
)	INTERFERENCES
)	
JOHN P. MCQUADE)	
Administrative Patent Judge)	

CEF:lmb

APPENDED CLAIM

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5. A steering wheel assembly comprising:

a hub including a bore for receiving an outer end of a steering shaft, said bore including a bearing surface;

a gear within said bore of said hub, said gear having circumferentially spaced teeth extending radially outwardly from an annular collar, said gear having opposite axial inner and outer ends, said gear further including a web-flange extending radially outwardly from said collar, said web-flange extending circumferentially between said teeth, said web-flange radially outwardly moving axially toward said inner end.